

Rhode Island Growth Model: Glossary of Terms

May 2012

1. Academic Peer

Academic peers are defined as students in a particular grade with a similar NECAP score history. The NECAP score history examined includes all past scores available for a given student. So, for a student who has had low NECAP scores (consistently at the *Substantially Below Proficient* level) for the last few years, his or her growth is compared to students who have scored similarly. This method of using academic peer groups also means that the Rhode Island Growth Model is fair in its estimation of growth percentiles for *all* students, because the model is blind to differences such as race, ethnicity, gender, and other demographic characteristics. To illustrate, since the growth of students in traditionally at-risk groups—such as those from families with low income—is estimated using only prior test scores, they are neither penalized nor advantaged for making strong academic progress simply for being a member of an at-risk group.

2. English Language Learner (ELL) / Limited English Proficient (LEP)

The phrases "English-language learner" and "limited-English proficient" and their respective acronyms, "ELL" and "LEP," are similar in meaning. A child is ELL or LEP when they speak another language at home AND their limited English abilities slow down their learning in school.

3. Free/Reduced-Price Lunch

The National School Lunch Program is a federally assisted meal program that provides nutritionally balanced, low-cost or free lunches to children each day. School districts that choose to take part in the lunch program get cash subsidies and donated commodities from the USDA for each meal they serve. Any child at a participating school may purchase a meal through the program. In order to qualify for this program, you must be a resident of the State of Rhode Island and a parent or primary caregiver responsible for a child(ren) who attends school (high school or under). *Free Lunch* eligibility: children from families with incomes at or below 130% of the poverty level. *Reduced-Price Lunch* eligibility: children from families with incomes between 130% and 185% of the poverty level.

4. Growth

For an individual student, growth is a measure of progress in academic achievement. For some states, this measure might simply be a change (a gain or a loss) in test scores from one year to the next. For Rhode Island, growth is not expressed in test score point gains or losses, but in percentiles of gain. An individual's gain or loss in test score points is used as the basis for a growth calculation, using a statistical model called *quantile regression*. The calculations use all available test scores to estimate a student growth percentile for each student. The student growth percentile score tells us how a student's test score change from one year to the next compares with that of other similar students (members of his or her academic peer group). In this way, Rhode Island's measure of growth is a *normative* rather than an *absolute* one.

5. Growth Model

For K-12 education, the phrase "growth model" describes a method of measuring individual student progress on statewide assessments by tracking the scores of the same students from one year to the next. Traditional student assessment reports tell you about a student's achievement, whereas growth reports tell you how much change or "growth" there has been in achievement from year to year.

6. Individual Education Plan (IEP)

An IEP is designed to meet the unique educational needs of one child, who may have a disability, as defined by federal regulations. In all cases the IEP must be tailored to the individual student's needs as identified by the IEP evaluation process, and must especially help teachers and related service providers (such as paraprofessional educators) understand the student's disability and how the disability affects the learning process.

7. LEA

A *Local Education Agency* or LEA, is a commonly used synonym for a public school district or an entity which operates local public primary and secondary schools. In Rhode Island, charter schools are also LEAs.

8. Median

The median is calculated by taking all the individual SGPs of the students in the group being analyzed, ordering them from lowest to highest, and then identifying the middle score, which is the median. The median may not be as familiar to people as the *mean* or *average*, but it is nonetheless similar in interpretation. Medians have been shown to be more appropriate to use than averages when summarizing a collection of percentile scores.

9. Median Growth Percentile

The median growth percentile summarizes student growth rates by district, school, grade level, or other group of interest.

10. Minimum Group/Cell Size

The RIGM public data website only displays median when a minimum number of 20 students is met. This is done for two reasons. First, the privacy of individual students must be protected at all times. It is very important not to release data to the public that are not adequately anonymous, and with small numbers of students in a given group, it might be possible to deduce exactly who each person is and what his/her data were.

Second, groups that have fewer than 20 members are not fairly characterized by a single number like the median because just a few unusually high or low numbers can have a big influence on it. The data for groups that have fewer than 20 members can be better understood by looking at the complete set of numbers, rather than by attempting to capture them in a single summary statistic. Districts and schools may need to do this as they evaluate their programs and plan for the future.

11. NECAP

The New England Common Assessment Program or “NECAP” as it’s commonly referred to comprises several content areas administered to students in grades 3 through 8 and 11. While science and writing are both NECAP tests administered to RI students, only the NECAP mathematics and reading tests are used in growth calculations. Further, only grades 3-7 are included in calculations. Because the RIGM requires two or more consecutive years of teaching-year data, grades 8 and 11 NECAP results cannot yield growth data because students are not tested in grades 9 or 12.

12. Proficiency

NECAP proficiency is an indicator of a student’s ability to demonstrate minor gaps in the prerequisite knowledge and skills needed to participate and perform successfully in instructional activities aligned with the GLE at the current grade level. It is likely that any gaps in prerequisite knowledge and skills demonstrated by these students can be addressed during the course of typical classroom instruction.

13. Race/Ethnicity

Race and ethnicity, as defined by the Federal Office of Management and Budget (OMB) and the United States Census Bureau, are self-identification data items in which individuals choose the race or races with which they most closely identify, and indicate whether or not they are of Hispanic or Latino origin (ethnicity). States are required to report aggregated data to the U.S. Department of Education according to the following seven categories: American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White; Two or more races; Hispanic of any race.

14. Rhode Island Growth Model (RIGM)

The Rhode Island Growth Model (RIGM) is a statistical model used to calculate each student’s progress on the NECAP Reading and Mathematics tests. It is also a tool for displaying student, school, and district results to educators and to the public. Student’s scores are used to create student growth percentiles (SGP), which are then aggregated to calculate median SGPs for teachers and schools. The RIGM requires at least two consecutive years of NECAP data in order to measure growth across years. Therefore, growth scores are only able to be calculated for grades 3-7.

15. Student Growth Percentile (SGP)

A ***student growth percentile*** (SGP) defines how much relative growth a student made. The Rhode Island Growth Model (RIGM) serves as a way for educators to understand how much growth a student makes from one year to the next relative to a student’s academic peers. More specifically, the RIGM compares each student’s current achievement to students in the same grade throughout Rhode Island who had similar NECAP scores in past years. The model then produces a student growth percentile much like children’s height and weight percentiles that pediatricians share with parents. For example, a child who is in the 76th percentile in weight is as heavy as or heavier than 76% of other children of the same age. Similarly, SGP scores have a relatively straightforward interpretation. In terms of the RIGM, a SGP of 60 indicates the student grew as well or better than 60% of his/her academic peers.

16. State-Operated Schools

State-operated schools are those that are managed by RIDE, which include William J. Davies, Jr. Career-Technical High School, Metropolitan Career-Technical School, Rhode Island School for the Deaf, and the Department of Children, Youth , and Families (DCYF).

17. Teaching Year

The NECAP reading and mathematics tests are administered in grades 3-8 and 11 and measure student achievement based on prior school year Grade Level Expectations (GLEs) and Grade Span Expectations (GSEs). The prior school year is known as the teaching year because that was the year in which the student was instructed on the GLEs/GSEs tested the following year (or testing year). Because the RIGM requires two or more consecutive years of teaching-year data, grades 8 and 11 NECAP results cannot yield growth data because there is no NECAP that measures grade 8 GLEs or grade 11 GSEs.

18. Title I

Title I, Part A (Title I) of the Elementary and Secondary Education Act (ESEA) provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards. Federal funds are currently allocated through four statutory formulas that are based primarily on census poverty estimates and the cost of education in each state. Schools in which children from low-income families make up at least 40 percent of enrollment are eligible to use Title I funds for schoolwide programs that serve all children in the school. LEAs also must use Title I funds to provide academic enrichment services to eligible children enrolled in private schools.

19. Urbanicity

Urbanicity is the degree to which a geographical unit is urban. When referring to the level of urbanicity for each district, RIDE maintains a standard policy of categorizing school districts into the following:

- Urban Districts:** Central Falls, Pawtucket, Providence, Woonsocket
- Urban Ring Districts:** Cranston, East Providence, Johnston, North Providence, Newport, Warwick, West Warwick
- Suburban Districts:** All other districts including Charter and State Operated Schools.

**For Further Information on the RIDE website, visit
<http://www.ride.ri.gov/Assessment/RIGM.aspx>**